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ABSTRACT

The feasibility of offering, on a voluntary, no credit basis, a programmed audio-tutorial instruction approach to the listening skills was investigated; and the extent to which these materials meet the listening needs of students was studied. Two groups of 22 and 20 students at a state university were chosen randomly from volunteers. The experimental group received six units of audio-tutorial instruction in listening skills, while the control group received no such instruction. Faculty-student contacts were made in small groups of five to seven students. When pre-test and post-test scores of the experimental and control groups were compared, the experimental group made significantly greater gain in listening scores. The test used was Ella E. Erway's audio-tutorial "Listening: A Programmed Approach" (McGraw-Hill, 1969). It was concluded that the units of tutorial instruction account for the "t" value of 6.706, signifying greater gain for the experimental group. The eagerness of the students to enroll in the course and their tendency to stay with it indicate the relevance of the Erway approach. (Author/CK)

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The Wisconsin State Universities Consortium of Research Development

Research Report

TESTING AND FEASIBILITY OF OFFERING A VOLUNTARY NON-CREDIT AUDIO-TUTORIAL COURSE IN LISTENING SKILLS

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TESTING THE FEASIBILITY OF OFFERING A VOLUNTARY NON-CREDIT AUDIO-TUTORIAL COURSE IN LISTENING SKILLS

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Local Project No. 6

SUMMARY

The purpose of this investigation was to determine the feasibility of offering, on a voluntary, no credit basis, a programmed audio-tutorial instruction approach to the listening skills, and to determine the extent to which these materials meet the listening needs of students.

Two groups of 22 and 20 students at Wisconsin State University-Whitewater were chosen, largely randomly, from volunteers from summer classes. Only students having ACT scores were used, in order that the abilities of the groups might be compared. The experimental group received six units of audio-tutorial instruction in listening skills, while the control group received no such instruction. Faculty-student contacts were made in small groups of 5 to 7 students.

The findings of the investigation are encouraging. The experimental and control groups were well matched. When pre-test and post-test scores of the experimental and control groups on a listening test were compared, the experimental group made significantly greater gain in listening scores. The test used was Ella E. Erway's audio-tutorial: Listening: A Programmed Approach (McGraw-Hill, 1969).

The investigators conclude that the units of tutorial instruction account for the t value of 6.706 signifying greater gain for the experimental group. The eagerness of students to enroll in the course, and their tendency to stay with it, indicate the relevance of the Erway approach.

The investigators point to the need for the experiment to be repeated, using larger numbers of students, including high and low achievers. They also conclude that some parts of the materials need to be re-written.

FINAL REPORT

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October 31, 1969

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INTRODUCTION

Rationale for the Study

During the first year of the English Department's Writing Laboratory (1968-1969), students were frequently referred to lab personnel for aid in taking notes on lectures. The referrals presented real problems. Standard texts on English composition and guides to better study skills offer brief discussions of notetaking, but what this kind of referral calls for is a self-administrable program designed to shape behavior rather than simple prescriptive statements. Furthermore, the proposition that taking notes is an activity that can be practiced without some motivation and need for notetaking seems pedagogically unsound.

Leroy D. Haley, director of the laboratory, presented his problem to members of the speech department, particularly John S. Cease. Cease and Haley hypothesized that the approach to the problem should be a direct attack not on the mechanical act of writing notes but rather on understanding the skills of controlling the listening process: developing the skill to identify key lecture items and of identifying patterns of development within such lectures.

The investigators felt that the need for developing listening skills is not limited to the relatively small number of students who have come to the lab asking for help. In a period when the need for compensatory education among culturally disadvantaged students is becoming increasingly apparent, there is also a real need to provide aid that is readily available to all students. This need is felt acutely by the university's academic counseling people who have the problem of finding sources of aid to which they can refer their clients. During the last academic year, this problem was acknowledged by this university's president who established an ad hoc committee to study the need for tutorial services. That committee made a number of recommendations which have not been acted upon as yet, at least in part because of lack of funds. The investigators of this study, concerned with these problems, are both interested in discovering fairly inexpensive ways of meeting the need for a compensatory education program.

Therefore, in an attempt to discover the best ways available to improve student listening skills and to make a first step toward establishing enlarged services to those students in need of special help, the investigators developed a proposal for a short-term study of an approach to listening instruction.

The investigators first drew up a list of student needs on the premise that these students should be given instruction based on their constant exposure to informative discourse--i.e., classroom lecture materials. The list follows:

1. The need to be able to select major ideas from supportive and/or explanatory materials.

2. The need to be able to determine the central idea and/or theme of a given lecture.
3. The need to be able to understand organizational patterns relative to informative discourse: i.e., to anticipate organization of a specific note-taking activity.
4. The need to be able to determine differences in motive appeals.
5. The need to be able to determine the differences in the style and language of informative discourse: e.g., to discriminate between formal and informal.

As a basis for their research, the investigators chose to test the usefulness of Ella E. Erway's audio-tutorial Listening: A Programmed Approach (New York: McGraw-Hill Book Company, 1969) which appeared to be consistent with the investigators' philosophy of compensatory education.

As the Erway audio-tutorial program was just entering the market of published materials, the investigators had no research data, other than Erway's own conclusions, on which to judge the usefulness of the program in this university's system. A careful review of the program, by the investigators, revealed a sound approach, but it was concluded that only an actual study, employing student utilization, could establish the program's practicality. Erway's audio-tutorial programmed approach seemed consistent with the philosophy of the present writing laboratory, a philosophy which appears to be successful. It was also a practical approach that required a limited amount of funding and that can fit into present facilities provided by the writing lab.

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The investigators chose to use Erway's material because the limits of time and their desire to move ahead in investigation made development of new material, for the moment, impractical. The investigators chose the Erway program rather than the Xerox Corporation program which costs a great deal--$200 a unit--and which is directed toward salesmen rather than students. The cost of the Erway program is reasonable: a set of tapes costs $50; the programmed texts cost $2.75 each, and the form of the program, as has already been indicated, was appropriate to the approach the investigators wished to follow. Finding no other practical options available, the investigators chose to use the published Erway materials for three reasons: time, cost, and availability.

Purpose of this Study

It was the purpose of this study (1) to determine the feasibility of offering, on a strictly voluntary, no-credit basis, a programmed audio-tutorial instructional approach to the improvement of listening skills and (2) to determine the ability of available programmed audio-tutorial instructional materials to meet the listening needs of students.

Long term goals of this study centered on determining any transfer of learning from the laboratory to the classroom: (1) to determine whether or not the student can transfer the skills learned from listening to tape-recorded speech to listening to speaking with visual stimuli and (2) to determine whether or not programmed instruction in listening skills can improve the student's ability to function more effectively in his attempts to successfully complete the instructional goals of this university.

Constantly underlying these goals were the criteria of cost in

faculty and materials and the need to expand the university's student-centered compensatory educational facilities.

Method of this Study

Two groups of volunteer students were selected from summer school classes. One group of twenty-two students received both a pre-test and a post-test plus six units of audio-tutorial instruction in listening skills. The second group, twenty students, received only the pre-test and the post-test with no instructional sequence in listening skills. Both groups were selected almost totally at random. No attempt was made to control the composition of either group. However, as ACT (American College Test) and GPA (grade point average) were to be used to compare the two groups, students without these scores had to be rejected. This did not present a problem to the investigators, for there were far more students desiring to participate than facilities available to accommodate them.

Once the two groups were set up the pre-test was administered to all students. Co-operation with the Department of Foreign Languages allowed the investigators to use that department's laboratory facilities which could accommodate up to thirty-five students at one time. The facilities of the language lab offered individual carrels and headsets for each student. In order to avoid conflicts with class attendance, pre-tests were administered in three-one-hour periods. All instructions were carefully printed on the pre-test form or given orally during the test. Oral directions were prepared in advance and read to the students at the appropriate times, minimizing emotional overtones and added meanings.

As the co-ordination of groups and student efforts within each group was important, the investigators set up a master schedule for all students involved. These schedules were distributed to all students as they completed their pre-testing. All students filled out "locator cards" to facilitate communication.

All control group students were informed of the post-testing periods to follow in four weeks and told that they would be reminded of the date. Reminders were delivered by their instructors approximately one week before the post-test.

Students in the experimental group were divided into four "study" groups. This allowed maximum use of the writing lab facilities and gave each student the opportunity to use his free time to his advantage. A schedule was set up so that students, in groups of from five to seven, could meet twice a week for three weeks to complete the six instructional units. Each student was provided with a programmed text and all necessary supplementary materials such as blank cards, paper, and pencils. Wet carrels were used so that each student was relatively isolated from the group as a whole. All listening activities were controlled via master tapes and individual headsets. Student groups met for 55-minute periods and all instruction was co-ordinated by the use of tape recordings as stimulus and programmed texts as a means of response. The tape recordings and programmed tests were those developed by Erway. Materials consisted of 6 sets of recordings co-ordinated with 6 units in the programmed test. In order to facilitate group instruction additional directions were given by the investigators. In order to provide uniform instruction, a tape recording was made of directions for each unit. After each instructional unit students logged their progress on "pro-

gram completion cards" devised by the investigators. These cards indicated the date on which each student completed each unit. Additional space was provided on these cards for students to offer comments on units completed. This offered a means of student feedback other than conversations with the investigators.

With the instructional sequence completed all 42 students of both the control and experimental groups were called back to the Language Department's laboratory for their post-tests. Post-tests were completed for all students during three scheduled hour-long periods.

The data analysis system used by the investigators was the T-test of significant difference. This test was used to determine significant differences between control and experimental groups relative to ACT composite scores, GPA cumulative ratings, and class differences. Raw data was submitted to the university computer center for T-test analysis.

II. FINDINGS AND ANALYSIS

Results of this Study

Analysis of the data gathered by the investigators tend to indicate the following results:

1. A comparison of the two groups relative to ACT scores resulted in a T-value of a -0.197497. Considering a 2.704 as that T-value at which significance is reached, it was concluded that there was no significant difference between the control and experimental groups relative to ACT scores.
2. A comparison of the two groups relative to GPA

ratings resulted in a T-value of a -0.664051. Considering significant difference reached at a 2.704, it was concluded that there was no significant difference between groups relative to GPA ratings.

3. A comparison of the pre-test and post-test scores of the control group resulted in a T-value of 0.152518. It was concluded that there was no significant difference between the scores attained by the control group on their pre-test and post-test.
4. A comparison of the pre-test and post-test scores of the experimental group resulted in a T-value of -6.705811. As significant difference was reached at 2.704, it was concluded that there was a significant difference between pre-test and post-test scores attained by the experimental group.
5. Comparing the post-test scores of the control group and the experimental group a T-value of -4.986276 indicates a significant difference between the two groups.

Analysis of Results

An analysis of the T-test results would lead the investigators to conclude that within the limits of this data analysis the following statements have a high probability of being valid.

1. It can be concluded that neither the control group nor the experimental group had an inherent advantage relative to:

a. Anticipated achievement as measured by ACT scores

b. Recorded academic achievment as reported by GPA ratings.

Thus it cannot be concluded that the experimental group attained significant improvement, when compared to the control group, simply on the basis of greater intellectual ability.

2. When comparing the T-values for pre-test and post-test scores attained by both the control group and the experimental group, the investigators concluded that:

a. There was a significant difference between both:

1. The scores achieved by the two groups and

2. The scores achieved by the experimental group on pre- and post-tests.

b. It was highly probable that the instructional sequence of six audio-tutorial units in listening skills was the determining factor of difference.

III. CONCLUSIONS AND RECOMMENDATIONS

Conclusions of this Study

The investigators have concluded that the original question, which provided the motivating force behind this study, remains unanswered. Can the student who finds himself unable to attain the level of achievement he desires, or that the university dictates as passing, because, at least in part, of his inability to cope with the

lecture atmosphere, be trained to improve his "note-taking" skill? This study did not validate the idea that: (1) improved skill in listening would result in improved "note-taking," or that (2) "note-taking" skills do, in fact, lead to better grades, or that (3) improved "note-taking" does, in any way, aid the student in coping with the lecture atmosphere. The question of whether or not the student can transfer listening skills learned via tape recordings and a programmed text to an actual classroom lecture can only be approached through long term observation. The investigators intend to hold follow-up interviews with the students in the experimental group and to check GPA ratings at a later date.

What the investigators do conclude from this study is that highly interesting and hopefully significant observations have been made. The following constitute the more highly probable conclusions:

1. Observing the enthusiasm with which students volunteered for the experimental group of this study and noting student feedback during the instructional sequence, the investigators concluded that many students recognize a frustration relative to listening skills and desire to improve their skills.
2. Noting that only three students of the original twenty-five to begin the experimental group did not complete the entire program, the investigators concluded that students felt a personal reward in completing these units. Student feedback during the instructional sequence continually reenforced this position. Participating students seemed to feel that they were increasing their skills in listening to informative discourse.
3. The investigators conclude that the Erway audio-tutorial

approach to listening skills can produce a marked improvement, over a relatively short period of time, in the students ability to:

a. Select major ideas from supportive and explanatory materials.

b. Determine the central idea or theme of a given selection of informative discourse.

c. Understand organizational patterns and anticipate items to follow.

d. Determine differences of style and motive appeals.

4. Finally, the investigators conclude that it is feasible to offer a voluntary, non-credit, self-administered course in listening skills.

Recommendations for Futher Study

Perhaps the strongest evidence indicating the practicality and feasibility of listening instruction via a self-administered audio-tutorial approach can be seen in the fact that both investigators have continued their use of this program. A new listening lab has been set up and students have logged more than 60 hours of listening activity so far this semester. The investigators concluded, however, that the program tested could be both improved and enlarged. They therefore suggest the following as recommendations for further study:

1. Numerous weaknesses were found in the Erway programmed approach. The tape recordings grouped units together which made location of individual elements difficult, the text itself was cumbersome to use at numerous places, tests needed re-writing, and directions needed clarification.

With these weaknesses corrected and the overall program improved, the entire study should be repeated.

a. A repeated study should be conducted (with the above corrections made) to include more students over a longer period of observation.

b. A repeated study should be conducted which concerns itself with highly selective groupings. For example, the following:

   (1) Control and experimental groups made up of students with GPA ratings of under 2.00.

   (2) Control and experimental groups made up of students with GPA ratings of over 3.00.

   (3) Control group with GPA ratings over 3.00 and an experimental group with GPA ratings under a 2.00.

2. It is recommended that a similar study and/or studies be conducted which involve the use of video-taped informative discourse.

3. Finally, the investigators strongly recommend that it would be highly advantageous to conduct, over a two-semester period, a study similar to the one just conducted but with a significantly larger number of students: e.g., the entire freshman class of this university. A question needing an answer is the following: Could all students achieve greater success in persuit of their studies <u>if</u> they were provided an opportunity to significantly improve their listening skills early in their university course of study?

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The following bibliography represents only those articles which most directly influenced the thought and direction of this project as of this date. A selection process was necessary as there are over two hundred sources which could, quite logically, be listed here.

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